

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 63-65, 67-60, 82-92, 94-99, 101, and 125-141 are pending in the present application, Claims 63, 64, 68-70, 74-76, 78-80, 83-85, 87-90, 96-98, and 134-136 having been amended, Claims 68-71, 75-77, 83-86, 89-91, 94-99, 127-130, and 133-138 having been withdrawn, and Claims 66 and 81 having been canceled without prejudice or disclaimer. Support for the present amendment is believed to be self-evident from the originally filed specification.¹ Applicant respectfully submits that no new matter is added.

In the outstanding Office Action, Claims 63-65, 67, 72-74, 125, and 126 were rejected under 35 U.S.C. §103(a) as unpatentable over Pizzi (EP 1026718) in view of Smith (U.S. Patent No. 5,677,823); Claims 128-130 were rejected under 35 U.S.C. 103(a) as unpatentable over Pizzi and Smith in view of Feng et al. (U.S. Patent No. 6,919,784, hereinafter Feng); Claims 78, 79, 80, 82, 87, 88, 92, 131, and 132 were rejected under 35 U.S.C. §103(a) as obvious over Pizzi and Smith in view of Fleming (US. Patent No. 5,867,302); Claim 101 was rejected under 35 U.S.C. §103(a) as obvious over Pizzi and Smith in view of Fleming; and Claims 139-141 were rejected under 35 U.S.C. §103(a) as unpatentable over Pizzi and Smith in view of Fleming and Feng.

Applicants respectfully submit that amended Claim 63 patentably distinguishes over a proper combination of Pizzi and Smith. Amended Claim 63 recites, *inter alia*,

the membrane bears directly on the means forming at least one pivot when only one of the fixed electrodes attracts a first portion of the membrane of the mobile electrode facing the fixed electrode, and another portion of the membrane of the mobile electrode is configured to move away from the substrate by mechanical return forces, thereby moving the electrical contact between a high position and a low position.

¹ See, for example, p. 4, ll. 20-25 of the originally filed specification.

Pizzi does not disclose at least the above-noted elements of Claim 63.

Claim 63 is amended to clarify that the flexible membrane of the mobile electrode bears directly on the pivot.

The micro-relay device of Pizzi includes a moveable part 3 constituted by petal 8 in the form of a metal film.² Two electrical contacts 10 are provided on petal 8. According to Pizzi's figures and paragraph [0011], the electrical contacts 10 come into contact with the fixed contacts 11 and 12. In Pizzi, the petal 8 does not bear directly on fixed contacts 11 and 12 (the elements in Pizzi page 2 of the Action considers to be a pivot). It is noted that some figures in Pizzi (Figs. 6 and 8 for example) only show side views, and Pizzi's Fig. 1 shows that contacts 10 will contact fixed contacts 11 and 12, and not petal 8. Thus, Pizzi does not disclose the claimed:

the membrane bears directly on the means forming at least one pivot when only one of the fixed electrodes attracts a first portion of the membrane of the mobile electrode facing the fixed electrode, and another portion of the membrane of the mobile electrode is configured to move away from the substrate by mechanical return forces, thereby moving the electrical contact between a high position and a low position.

Figure 1A of Smith shows that bridging contact 8 may contact base contact 3. However, this situation only occurs when voltage is applied to **both** deflection electrodes 4, 5 in the substrate. The bridging contact 8 does not bear directly on base contact 3 “when **only one of the fixed electrodes** attracts a first portion of the membrane of the mobile electrode facing the fixed electrode, and **another portion of the membrane of the mobile electrode is configured to move away from the substrate** by mechanical return forces, thereby moving the electrical contact between a high position and a low position.”

² Pizzi, paragraph [0009].

Furthermore, it is not clear that a person of ordinary skill in the art would “rearrange”³ elements 11 and 12 of Pizzi to be directly under the petal 8 based on Smith. Contacts 10 must still be able to complete a circuit with elements 11 and 12, and it is not clear how such a circuit would be completed if elements 11 and 12 are rearranged to be directly under the petal 8. It is not clear how such modification could be achieved without a substantial reconstruction or redesign of the Pizzi device.⁴

In view of the above-noted deficiencies, a person of ordinary skill in the art could not properly combine Pizzi and Smith to arrive at the invention defined by Claim 63.

Applicants respectfully submit that amended Claim 63 (and any claims dependent thereon) patentably distinguishes over Pizzi. Claim 78 recites features analogous to those of Claim 63. Applicant respectfully submits that amended Claim 78 (and any claims dependent thereon) patentably distinguishes over a proper combination of Pizzi and Smith, for at least the reasons stated for Claim 63.

Feng and Fleming have been considered, but do not cure the above-noted deficiencies in Pizzi and Smith.

³ See, p. 3 of the Action, where Office argues that the “rearrangement of parts” of Pizzi would be obvious.

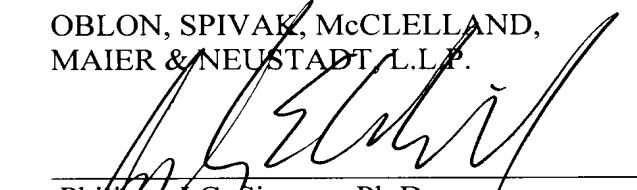
⁴ See In re Ratti, 270 F.2d 810, 813, 123 USPQ 349, 352 (CCPA 1959) (reversing an obviousness rejection where the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.”)

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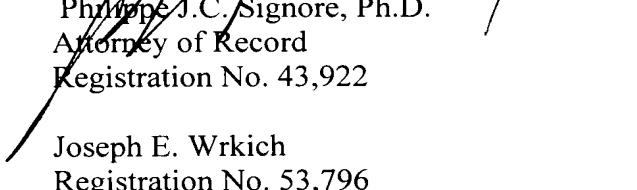
Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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